

CRS/Pakistan
Transitional Shelter Response for Flood-Affected Households in
Sindh
AID-OFDA-G-13-00008

QUARTERLY REPORT
01 APRIL 2014 – 30 JUNE 2014



Women using the veranda space of a shelter in UC Nawra.

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Project Title:	Transitional Shelter Response for Flood-Affected Households in Sindh
Project Number:	#AID-OFDA-G-13-00008
Project Duration:	December 03, 2012 – June 02, 2015
Project Cost:	\$4,656,868
Reporting Period:	April 01, 2014 – June 30, 2014
Date of submission:	July 31, 2014

I. Project Background

From 7 to 10 September, 2012 heavy rain inundated communities in northern Sindh, northeastern Baluchistan and southern Punjab Provinces of Pakistan with more than 400mm of rain resulting in widespread flooding. Rains were heavier than normally experienced during the monsoon season, and communities received no advance warning. A number of canal breaches further exacerbated the situation and submerged many villages. It was estimated that the floods affected 939,000 people in Jacobabad District – equivalent to 89% of the total district population¹. The flooding forced many families to seek refuge on roadsides, in neighboring villages or in spontaneous settlements. The same communities in northern Sindh were also affected by the catastrophic flooding of the 2010, and had not fully recovered before they were again hit by floods. Both the 2010 and 2012 floods, although different in nature, are an unfortunate indication of future flood risks in the low-lying areas of Sindh province.

Overall, to date, the CRS Pakistan shelter program has received a total of \$3,645,836, of which \$3,080,156 is from OFDA. This total amount for shelter programming has supported a total of 5,167 households (approximately 31,002 beneficiaries) in Jacobabad District, Sindh Province whose homes were destroyed or severely damaged in the floods. The funding from OFDA was complemented in December 2012 by \$252,897 (€191,817) from Cordaid, and \$146,238 from CRS private funds. In December 2013 CRS received \$147,781 from the United Nations (UN) Emergency Rapid Fund (ERF) and contributed \$18,764 from CRS private funds for the construction of an additional 305 shelters in Union Council (UC) Nawra, District Jacobabad. CRS increased the target and added an additional 345 shelters utilizing savings in the budget. In total, the CRS shelter program has supported 5,512 households, approximately 33,072 beneficiaries to date.

In July 2014 CRS and OFDA signed a cost modification for an additional 2,000 shelters for UC Kot Jango, District Jacobabad.

¹ Multi-sector Initial Rapid Assessment (MIRA) Final Report, October 2012
Page 2 of 10

The OFDA grant has gone through a number of modifications represented in the table below:

	Agreement #1	Modification #1	No Cost Extension	Modification #2	No Cost Extension	Modification #3
Extension Period	03 Dec 2012 – 02 June 2013 (6 months)	03 June – 02 Sept 2013 (3 months)	03 Sept – 02 Nov 2013 (2 months)	03 Nov 2013 – 02 Mar 2014 (4 months)	03 Mar – 02 June 2014 (3 months)	03 June 2014 – 02 June 2015 (12 months)
Additional Extension Amount	\$ 1,199,360	\$1,130,797	\$0	\$749,999	\$0	\$1,576,712

CRS began implementing the shelter program in December 2012 to support households in their villages of origin in UC Karim Bux and later expanded the shelter programming into four additional UCs (Bachro, Ahmedpur, Nawra, and Kot Jango). CRS has provided adequate, durable, and flood resistant transitional one-room shelters (ORS), which are aligned with both the Shelter Cluster approach and Sphere Minimum Standards, and also incorporate essential DRR elements.

Project highlights this quarter:

- Due to the ongoing activities suspension in UC Nawra and the time constraints on the OFDA grant, CRS coordinated with OFDA and shifted the remaining target of 602 Shelters from UC Nawra to UC Kot Jango, District Jacobabad. As a result, some figures in this report are updates against the targets reported at the end of Quarter 4 and 5; 579 households (588 shelter kits) registered in 03 dehs² of UC Nawra did not receive shelter materials because of security constraints leading to activities cancellation and shifting of targets.
- In this quarter CRS registered 593 households (602 shelter kits) to reach a cumulative total of 4,970 households, including 365 vulnerable households (for a total of 5,167 shelter kits - 29,358 beneficiaries³) from 392 villages across 10 dehs of UC Karim Bux, 08 dehs of UC Bachro, 06 dehs of UC Ahmedpur, 06 dehs of UC Nawra and 02 dehs of UC Kot Jango.
- Shelter construction is supported by 137 local skilled laborers who were trained by CRS.
- Beneficiaries completed 602 shelters with mud plaster in UC Kot Jango. In UC Nawra, the completion of the 275 remaining shelters mud plaster work was verified through dehs' focal persons and committee chairmen⁴.
- CRS distributed 2,155 insect treatment kits to termite/beetle-affected shelters' households during this quarter. The new total is 4,157 chemical kits distributed to 3,440 households. CRS paid a total of \$13,826 from its cost share for the 4,157 kits⁵.
- CRS continues to improve the design and resiliency of the transitional shelters. In May and June 2014 heavy winds hit UC Kot Jango and as a result affected the roofing. In coordination with its technical advisors, CRS modified the transitional shelter design with galvanized iron (GI) wire for certain joints. Also, in July 2014 CRS held a meeting with Strawbuild International⁶, ACTED and HANDS to learn more about lime stabilized soil. CRS will follow up with Strawbuild International to learn from the new methods other actors are using to increase the resiliency of the wall and roof mud plastering and possibly the plinths as well for CRS' shelter design.
- Site planning for a total of 1,010 shelters to date was started last quarter in UC Nawra. This quarter the project continued this activity for 28 villages in UC Kot Jango.

² A "deh" is an administrative unit used in Pakistan that includes multiple communities but is smaller than a union council.

³ Households with 10 or more people are eligible for two shelters.

⁴ Due to the insecurity in UC Nawra, CRS has triangulated information from the dehs' focal persons, committee chairmen and skilled laborers to determine the number of shelters completed. This quarter, CRS was able to verify completion of all remaining 275 shelters.

⁵ No OFDA funds have been used on this activity.

⁶ A U.K.-based organization that started working in northern Sindh in January 2014

II. Objectives:

Program Goal: Flood-affected households live in safe and dignified shelter

Beneficiaries:

- Total Number of Beneficiaries Targeted: 7,167 households (approximately 43,002 beneficiaries)
- Total Number of IDP Beneficiaries Targeted: 0 households (0 beneficiaries)
- Age and Gender Disaggregation of registered households:

Under 18 / Male	Under 18 / Female	Over 18 / Male	Over 18 / Female	Total
9,510	8,369	5,574	5,905	29,358 ⁷
32.40%	28.51%	18.98%	20.11%	100%

Indicator	Description	Total Target	Progress
Indicator 1:	Number of households in the program area receiving emergency/transitional shelter	7,167 HHs (43,002 individuals)	5,167 shelter kits 4,970 HHs (29,358 individuals)
Indicator 2:	Number of households in the program area receiving emergency/transitional shelter pursuant to Sphere Project standards and FOG guidelines	7,167 HHs (43,002 individuals)	5,088 shelter kits 4,891 ⁸ HHs (28,520 individuals)
Indicator 3:	Percentage of total affected population in the program area receiving emergency/transitional shelter assistance, by sex	71,681 ⁹ HHs affected (50% male, 50% female ¹⁰)	4,970 HHs or 6.93% of affected population (51.38% male, 48.62% female)
Indicator 4:	Total USD amount and percent of approved project budget for emergency/transitional shelter assistance spent on goods and services produced in the affected host country economy.	\$ 2,908,166	\$1,882,620 65% of target
Indicator 5:	95% of targeted households (6,808 households) live in shelters that meet Sphere guidelines by June 02, 2015.	6,808 HHs (95%)	71% ¹¹ of targeted households (4,891 HHs) are living in 5,088 Sphere compliant shelters.
Indicator 6:	80% of targeted households (5,733 households) report the shelter support they received was useful, timely and of good quality.	5,733 HHs (80%)	92% of targeted households who have received a shelter kit (approximately 4,198)

⁷ All beneficiaries were recipients of OFDA-funded shelter project support. Of these, 3,979 households (23,138 individuals) in 4,157 OFDA-funded shelters were also recipients of complementary funding from Cordaid for veranda construction to complement the OFDA-funded shelter. With later design revisions, the verandas have been included into the OFDA-funded shelter project.

⁸ 79 households with 10 or more members declined two shelter kits, saying that they had a lack of resources to raise two plinths and that they did not have enough land for two shelters.

⁹ The Final MIRA results report a total 71,681 partially and fully damaged houses in Jacobabad District

¹⁰ Preliminary MIRA results indicate that Jacobabad District of Sindh Province has a male to female population ratio of 50% to 50%. No figures included in the Final MIRA report.

¹¹ As per proposal households with 10 or more people are eligible for 2 shelters

			households)¹² – of which useful (79%)¹³, timely (100%), and good quality (98%)
Indicator 7:	60% of targeted households (4,300 households) have started building transitional shelters within two weeks after material distribution.	4,300 HHs (60%)	Approximately 4,288 households who have received a shelter kit ¹⁴ (60%)

III. Activities and Outputs:

Security constraints:

The security situation remained volatile since the shooting incident of January 28, 2014 involving PREPARED staff. In another incident, on March 10, 2014, in UC Nawra five persons were killed and one community leader was seriously injured.

Because of the prevailing unfavorable security situation in UC Nawra, CRS has cancelled the registration of 579 households registered for 588 shelters and shifted the total remaining target of 602 Shelters to UC Kot Jango (another priority UC of District Jacobabad) with proper coordination with the Shelter Cluster and OFDA.

Procurement:

In Quarter 5, material for a total of 602 shelters remained at the vendor warehouse. CRS regularly visited to assess the quality of material and verify precautions being taken by the vendor to maintain the safety and quality of material. It was identified that some of the chick mats' binding ropes were weakened and broke due to the mats being stored close together and in an air-tight premises; this then caused the chick mats to open up. The vendor repaired the chicks by rebinding the sticks.

After the necessary repairs, all the remaining 602 shelters' materials were distributed to 593 beneficiary households during Quarter 6.

Targeting, Household Registration and Mobilization:

To date CRS has registered a total of 4,970 households including 352 vulnerable households (total 29,358 beneficiaries) from 392 villages across 10 dehs of UC Karim Bux, 08 dehs of UC Bachro, 06 dehs of UC Ahmedpur, 06 dehs of UC Nawra and 02 Dehs of UC Kot Jango. Each UC was selected for intervention after consultation and input from the Shelter Cluster. CRS communicates actively with all stakeholders in Jacobabad to ensure proper coordination, identify priority areas for support, and avoid overlap. CRS also regularly shares program progress via the 4W matrix with the NFI/Shelter cluster, and attends cluster meetings in Jacobabad (District), Sukkur (Provincial), and Islamabad (National) levels.

Prior to starting household registration for the remaining 602 shelters in the newly targeted UC Kot Jango, CRS and its partner PREPARED conducted village-wide meetings with all community members to provide orientation on the targeting criteria, the shelter design, and the importance of the raised plinth and other DRR initiatives in this program. In UC Kot Jango CRS targeted households whose homes were either totally destroyed or severely damaged and uninhabitable from the 2010 and 2012 flood. The registration criteria were clearly displayed on Panaflex banners in Sindhi, and explained to every household during registration. To date across all targeted UCs, 392 shelter committees have been formed to facilitate project activities in 392 villages

¹² Result from Shelter Monitoring Follow Ups (January 2014). Number of households is extrapolated from the random survey sample.

¹³ As per the proposal, "useful" refers to the learning of construction techniques

¹⁴ Result from the Technical Construction Monitoring data.

and the committees signed MOUs to outline roles and responsibilities. Each committee included two female members.

The shelter size (12 feet x 19 feet) is consistent with the size of existing permanent houses in the area and is sufficient to house 06 family members in accordance with Sphere standards. CRS planned to provide 02 shelter kits for families of 10 or more. Based on this criterion and the household data collected, 276 families (5.6%) were eligible for two shelters; however, only 197 households accepted both shelters. The households that refused a second shelter cited a lack of resources to raise two plinths or limited available land on which to build. CRS field staff has observed that where two shelters have been provided, some households are using this second shelter for their animals. In response, CRS encourages the shelter committees to recognize the importance of proper use and maintenance of the shelters. As they are responsible for the sustainability of the shelters in the community, the committees encourage households to only accept those shelters that they would use for their families.

Number of members in HH	# of HHs	# of beneficiaries	% of total HHs
6 and below	3,161	14,315	63.6%
7 – 9	1,533	11,906	30.8%
10 and above	276	3,137	5.6%
Total	4,970	29,358	100%

Site Planning:

Site planning has been introduced to the project for 1,010 shelters and implementation began in UC Nawra. During the reporting period, site planning was conducted for 28 villages in UC Kot Jango. In total, CRS has facilitated site planning exercises for 61 villages in UC Nawra and Kot Jango. During site planning exercises, men and women from all registered households, together with the shelter committee and non-beneficiaries, draw a map of their village including all permanent structures and facilities in the village and then place small model shelters on it. It takes almost 02 hours in one village for this exercise. Engineers and social mobilizers facilitate the process. Engineers highlight technical and disaster resilient aspects of the plan, such as a south-facing opening, distance between shelters, provision of pathways, avoiding shelters under high voltage electrical lines and big trees, avoiding shelters in the low lying areas within the villages, placement of animal shelters, and distance from hand pumps and latrines. Social mobilizers ensure that lands selected for house construction are free of disputes and there is consent in the community upon site selection. Communities take interest during this exercise and show great involvement, designing their own villages ensuring safety and privacy of different families within the villages. Communities' interest helps to mobilize the plinth raising later on. Field teams have also observed that conflict/issues regarding site selection are being resolved during the site planning exercise as all households are present during the exercise and decide collectively on the appropriate site for each shelter.

Plinth raising:

In each village, CRS and PREPARED held comprehensive community discussions on the expected origin of the mud to ensure that mud was taken from unused, non-agriculture land, and would not create new hazards within the community. CRS field teams have found that soil is readily available in UC Kot Jango, and that communities have been very proactive to raise their plinths. In addition to the availability of soil, communities in UC Kot Jango, like UC Nawra, did not receive shelter assistance following 2010 and 2012 floods and therefore have been very keen to engage fully in the program and raise their plinths.

Distribution of shelter materials:

The shelter material distribution process has been described in previous reporting periods. During the reporting period 602 shelter kits were distributed from the vendor warehouse. In total 5,167 shelter kits have been distributed to 4,970 households.

CRS and PREPARED conduct an exit interview at the vendor warehouse at each distribution day with a random selection of beneficiaries. The information from the exit interviews is reviewed on a daily and weekly basis by

the Program Manager. During the reporting period, 50 shelter material recipients provided feedback. Key results against total shelter recipients till date include:

- 98% had received sufficient information prior to arriving to the distribution point and that the distribution timing was appropriate, and 99% felt the distribution location was appropriate.
- On average beneficiaries waited for 42 minutes at the distribution site before receiving materials, and 94% felt that this was an appropriate time to wait.
- 97% stated that they received all the items that they had expected, 1% stated that they had anticipated receiving plastic sheeting¹⁵, whereas 2% mentioned poor quality of the bamboos and chick mat.
- 98 % had planned transport for materials prior to distribution day, with 91% transporting materials by tractor trolley, 3% by medium sized Mazda truck and 6% by large truck. On average beneficiaries paid 733 PKR for their transport – which is 133 PKR higher than the 600 PKR provided through the program.
- 90% stated that they knew how to contact CRS or PREPARED.

Shelter construction:

CRS completed the distribution of 602 shelters in UC Kot Jango to 593 households by the end of April 2014. CRS and PREPARED's technical teams were in the field daily to visit targeted villages and provide technical support and guidance on construction matters and to mobilize the team of skilled laborers on construction sites.

On May 17, 2014 these 602 shelters were entirely completed, including the mud plastering. By the end of the reporting period, a total of 5,165 shelters were completed with mud plastering with the support of the skilled laborers.

CRS faced some time constraints due to the UC Nawra security situation and remaining 602 shelter target shifting. Considering the urgency CRS did not hire and train the new skilled laborers for shelter construction, and instead deployed the already-trained team of skilled laborers, including the residents of nearby villages of UC Kot Jango and UC Karim Bux. Overall, CRS and PREPARED have trained a total of 137 skilled laborers on the construction of the shelters according to the design and specifications of the shelters. CRS discussed and signed a formal agreement with each skilled laborer in the presence of village committees. During the reporting period, CRS paid a total of \$7,381 with OFDA funds to skilled laborers. Since the start of the grant, CRS has paid a total of \$51,595 to 137 skilled laborers, for work on an average of 37.70 shelters per skilled person.

Furthermore, 48 cash grant payments of 600 PKR for each shelter were made during this quarter to vulnerable households for unskilled labor support. To date within the project, 354 cash grant payments for unskilled labor have been made, totaling \$2,066.

CRS was facing challenges in making payments to beneficiaries for cash grants and also shelter material transportation. To solve this CRS invited the beneficiaries to the nearest point to receive their payments. CRS estimated that the roundtrip from UC Nawra to Jacobabad costs the beneficiaries 70 PKR, and therefore covered that expense in addition to the agreed transportation and cash grants. CRS paid this fare compensation from its cost share to 392 beneficiaries' households for 402 shelters at PKR 70 per beneficiary household.

Operation & Maintenance (O&M) / Disaster Risk Reduction (DRR):

During the reporting period a total of 35 Operation and Maintenance (O&M) sessions were conducted with the members of 35 village shelter committees in UC Kot Jango. No formal O&M sessions could be conducted with the 34 communities of UC Nawra because of the unfavorable security situation; however, each beneficiary household was trained during the construction phase on different steps of construction which will be beneficial for any future O&M needs.

Overall, a total of 356 O&M sessions have been conducted in 356 villages, reaching 2,492 committee members.

¹⁵ This feedback was received from the beneficiaries who did not receive plastic sheeting, having received them at an earlier date from Save the Children

Transportation Payments:

CRS budgeted 600 PKR per shelter to distribute to beneficiaries for the purpose of transporting shelter material from the vendor warehouse to the village. This payment is made after completion of the shelter with mud plaster. In total, \$30,126 has been paid against transportation payments for 5,127 shelters. CRS had planned to make payments to 5,165¹⁶ shelter households; however, as reported in Quarters 4 and 5, 34 families migrated to Baluchistan before receiving their transportation payment. In this reporting period an additional 06 households in UC Nawra migrated because of the security situation. During the reporting period CRS made shelter material transportation payment to 1,004 Shelters' beneficiaries' households.

As already detailed, CRS faced a challenge with payment distribution for UC Nawra households. The transportation payments were conducted in the same way as the unskilled labor cash grant payments for vulnerable households.

Follow up on challenge of insects:

As mentioned in the previous report, CRS experienced the challenge of insect infestation in some of the constructed shelters, despite a number of preventive measures¹⁷ taken by the contracted material vendor. Following the UC-wide assessment on the affected shelters, CRS consulted with the Heritage Foundation and the Shelter Cluster about appropriate treatment options. CRS used its private resources to purchase and distribute insect treatment kits to each household. The kit includes 1.8 liters of spray mixture (kerosene oil and chemical in a sealed can), 1 set of gloves, and 1 spray bottle for 5 shelters.

During the reporting period, CRS distributed 2,155 insect treatment kits to beneficiaries' households as appropriate treatment option. To date, a total of 4,157 chemical mixture kits have been distributed to 3,440 beneficiary households.

Gap Assessment:

In light of the persisting need for adequate shelter in northern Sindh, CRS coordinated with OFDA and the Shelter Cluster to investigate the specific needs of local communities last quarter. Based on results from that assessment and in coordination with Shelter Cluster, CRS selected UC Kot Jango for its cost modification geographic area to construct an additional 2,000 shelters. CRS also initiated a needs assessment for water, sanitation and hygiene and livelihoods gaps to complement site planning interventions in UC Kot Jango.

Accountability, Monitoring and Evaluation:

CRS and PREPARED conduct regular program monitoring activities – both through their day-to-day visits within the communities and specific monitoring exercises. This is in addition to a comprehensive accountability and transparency mechanism for both beneficiaries and non-beneficiaries to contact CRS. Regular monitoring activities included:

- Weekly programmatic planning and reflection sessions
- Weekly review of complaints database
- Exit interviews at distribution points
- Real Time Evaluation (conducted in April 2013)
- Technical construction monitoring
- Shelter monitoring follow ups (January 2014) – specifically looking to address Indicator 6.

CRS maintains a feedback accountability tracking sheet which is reviewed by the Program Manager and field teams on a daily and weekly basis. During the life of the shelter program CRS received a total of 388 questions

¹⁶ CRS was unable to make the payment to 02 beneficiaries households that migrated early in the life of shelter project.

¹⁷ In monsoon season termite/insect presence is common in Sindh so vendor sprayed all material with kerosene and restacked materials vertical standing rather than lying horizontally to try to prevent insect infestations during the July and August 2013 monsoon season to maximize protection for shelter materials which were stacked in the vendor warehouse in Jacobabad

from community members. These were received via complaint/suggestion box at vendor warehouse during distributions (57%), directly to staff during field visits (19%), helpline number (2%), and directly by telephone to field staff (1%) and from feedback form (21%). Overall 79% of the questions were regarding shelter, with the majority of requests for CRS to re-visit the village and provide shelters to eligible persons (missed or displaced at the time of registration), registered households who were not present in the village during the distribution of Shelter Material Vouchers, missing materials following collection from the warehouse, and requests from neighboring villages or UCs for shelter support. CRS has responded by carrying out additional registration and verification visits to the villages to investigate the validity of the calls. Whenever CRS identifies and verifies an eligible household that had not been previously registered, CRS proceeds to register them and incorporate them into the project plan.

During this reporting period no complaints were received for material quality or presence of insects. For each complaint, CRS field teams follow up in the community to verify the information received, and if there were missing and eligible households then they would be registered for support. Remaining 21% of feedback related to requests for WASH, DRR/Protection, Food items, Livelihood and other requests which are available with the Monitoring, Evaluation, Accountability and Learning (MEAL) team for any reference and/or referral.

IV. Analysis of Project Activities

a. Program Successes

- CRS completed its second round of site planning exercises for 28 villages in UC Kot Jango using the Site Planning Guidelines shared in the previous report. The communities have expressed their appreciation for this exercise and CRS expects that it will be a successful practice that formalizes DRR practices and encourages CRS and the communities to take a more holistic approach to their recovery and development.

b. Challenges and Constraints

- Security Constraint: In this reporting period because of security incidents in UC Nawra, project staff could not conduct follow up visits.
- Migration: 06 additional households have migrated out of the project area with their shelter material because of the conflict in UC Nawra.
- Harvesting Season: Most beneficiary households are agrarian and remained engaged in seasonal harvesting during April. CRS managed the field activities appropriately to ensure the timely completion of activities with quality standards.
- Heavy Winds: During the reporting period, two wind storms struck District Jacobabad¹⁸. In villages of UC Kot Jango heavy winds removed the mud plaster from shelters' roofs in most of the cases, while the rest of the shelter structure remained safe and unaffected, including the roof structure. In two incidences, two shelters' roofs blew off from the wind storms. During a field visit, project staff found that wind storm-damaged households had started working on re-mud plastering immediately after the storms. Project staff also collected reports from other UCs to see the level of impact and also observed UC Karim Bux areas while travelling to UC Kot Jango for field activities. The teams did not see any damages outside of UC Kot Jango. It is important to note that UC Kot Jango is at higher elevation than neighboring UCs.

Although the overall shelter structures were not affected by the wind storm, it is now clear that wind storms are another hazard to consider for this geographic area. The CRS Technical Advisor for Shelter was consulted and recommended some technical inputs that will be incorporated in the shelter design to improve the shelter integrity during wind storms. The inputs are given below.

For the complete roof blowing off, GI wire is recommended for the following joints:

- All joints between column and wall support (total 36 joints)

¹⁸ The first wind storm happened on 17th May 2014 when it damaged the huts, shelters, electric poles, etc. within UC Kot Jango. The second storm happened on 22 June 2014 with same impact. Both times the communities reported the situations.

- All joints between column and tie beam (total 9 joints)
- Only corner and middle joints between tie beam and rafter (total 39 joints)
- Only corner and middle joints between the rafter and purlins (total 51 joints)

The specification for the GI wire to use is gauge # 14, (2.032 mm), aluminum made. The total quantity of wire for each shelter is 4 kg, and the estimated cost per kg is 150 PKR.

For the roof mud plaster removal, CRS can advise communities during technical assistance to use hay between two thin layers of mud plaster instead of placing it directly on the plastic sheet. This will increase bonding between the sheets and the mud.

Also, as noted above, CRS is further looking into ways to improve the shelters' mud plastering resilience through lime stabilized soil methods.

VI. Activities Planned for the Next Quarter:

The main activities planned for the next period are as follows:

- Signing the sub-agreement with PREPARED after signing the cost modification award with OFDA for an additional 2,000 shelters
- Incorporating the Technical Advisor-Shelter inputs into the shelter design and bill of quantities to increase the shelter sustainability
- Beginning the procurement process for shelter materials
- Conducting social mobilization activities, including registering shelter beneficiaries, and then implementing the shelter construction activities
- Investigating improved lime stabilized soil methods for increased shelter resiliency